ATTACHMENT A

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A machine readable multiple layer label to be read by a sensor, said label comprising:

a plurality of machine readable marking layers stacked one upon another, each said marking layer encoding an identification symbol detectable using a sensor selected from the group consisting of x-ray, radar, capacitance, thermal and magnetic sensors.

2. (Original) The machine readable multiple layer label of claim 1, wherein said identification symbol comprises a two-dimensional symbol.

3. (Original) The machine readable multiple layer label of claim 2, wherein said two-dimensional symbol comprises a matrix forming an encoded array.

4. (Original) The machine readable multiple layer label of claim 1, wherein the symbols encoded by the marking layers are adapted to be detected using a sensor providing non-optical detection of said symbols.

5. (Original) The machine readable multiple layer label of claim 1, wherein said marking layers are comprised of the same sensing medium.

6. (Previously Presented) The machine readable multiple layer label of claim 5, wherein said identification symbols of said marking layers are adapted to be detected by an x-ray sensor.

7. (Previously Presented) The machine readable multiple layer label of claim 1, wherein each of said marking layers comprises a different medium having characteristics detectable by different sensors of said group.

8. (Previously Presented) The machine readable multiple layer label of claim 1, wherein each of said marking layers comprises a different medium having characteristics detectable by different sensors, and said different sensors comprise at least two different sensors of the group consisting of x-ray, radar, capacitance, thermal, magnetic, and ultrasonic sensors.

9. (Original) The machine readable multiple layer label of claim 1 further comprising an opaque layer disposed over said plurality of machine readable marking layers.

10. (Original) The machine readable multiple layer label of claim 1 further comprising at least one neutral layer disposed between two of said plurality of marking layers.

11. (Original)The machine readable multiple layer label of claim 1 further comprising a plurality of neutral layers, each of said neutral layers separating two of said plurality of marking layers.

12. (Original) The machine readable multiple layer label of claim 1 wherein said marking layers are stacked in an offset manner from one another.

13. (Previously Presented) A method for producing a multiple layer machine readable identification label, said method comprising the steps of:

(a) applying a marking medium to a substrate layer to form a marking layer encoding a machine readable identification symbol therein, the marking medium having a detecting value that differs from that of the substrate layer and being detectable by a sensor selected from the group consisting of x-ray, radar, capacitance, thermal and magnetic sensors;

(b) applying a neutral layer on the marking layer for spacing;

(c) repeating steps (a) and (b) until the desired number of marking layers are formed and using the most recently applied neutral layer as the substrate layer for the successive marking layer.

14. (Original) The method of claim 13 wherein the step of applying a marking medium comprises a step of applying a marking medium to form an offset marking layer.

15. (Original) The method of claim 13, wherein the step of applying a marking layer comprises:

applying a stencil having openings to the substrate layer; and

backfilling the openings with the marking medium.

16. (Original) The method of claim 13, wherein the step of applying a marking layer comprises:

applying a transfer tape to the substrate layer, the transfer tape having an image composed of the marking medium formed thereon; and

inducing the image from the transfer tape to the substrate layer.

17. (Original) The method of claim 13, wherein the step of applying a marking layer comprises:

removing marking medium in selected area to form the machine readable identification symbol.

18. (Original) The method of claim 13, wherein the step of applying a marking layer comprises:

forming a recess in the substrate layer; and

backfilling the recess with the marking media.

19. (Original) The method of claim 13, further comprising aligning images used to form a segmented symbol.

20. (Original) The method of claim 13, further comprising:

dividing a symbol into at least two segments; and

the step of applying marking medium to a substrate layer includes a first step which encodes a first of the at least two segments and a second step which encodes a second of the at least two segments.

21. (Previously Presented) An automatic identification system, said system comprising:

a plurality of machine readable marking layers stacked one upon another, each of said marking layers encoding a respective identification symbol, and

sensor means for detecting said respective identification symbol of each of said marking layers, said sensor means comprising a sensor selected from the group consisting of x-ray, radar, capacitance, thermal and magnetic sensors.

22. (Original) The system of claim 21, wherein at least one of said identification symbols comprises a two-dimensional symbol.

23. (Original) The system of claim 22, wherein said two-dimensional symbol comprises a matrix forming an encoded array.

24. (Currently Amended) The system of claim 21, wherein said plurality of machine readable marking layers are comprised of the same medium and

said sensor means comprises ~~a~~an x-ray sensor with tomographic capabilities for reading said respective identification symbol from each of said marking layers.

25. (Previously Presented) The system of claim 21, wherein each of said marking layers comprises a different medium having different characteristics; and

said sensor means comprises at least two different sensors of said group, each of the different sensors detecting said symbol from a respective marking layer.

26. (Previously Presented) The system of claim 21, wherein each of said marking layers comprises a different medium having characteristics detectable by different sensors, and said different sensors comprise two of the group consisting of x-ray, radar, capacitance, thermal, magnetic, and ultrasonic sensors.

27. (Previously Presented) The system of claim 24 wherein said sensor comprises an x-ray sensor.

28. (Original) The system of claim 21, further comprising an opaque layer disposed over said plurality of machine readable layers.

29. (Original) The system of claim 21, further comprising at least one neutral layer disposed between two of said plurality of marking layers.

30. (Original) The system of claim 21, further comprising a plurality of neutral layers, each said neutral layers separating any two of said plurality of marking layers.

31. (Original The system of claim 21, wherein identification symbols of at least two of said marking layers comprises a first symbol fragment and a second symbol fragment.

32. (Original) The system of claim 31 further comprising a processor for assembling said first symbol fragment and said second symbol fragment after detection thereof to thereby form a complete symbol.

33. (Previously Presented) A method of automatic identification, said method comprising the steps of:

applying a multiple marking layer label onto a component, each marking layer encoding a respective identification symbol; and

detecting the respective identification symbol from each marking layer using a sensor selected from the group consisting of x-ray, radar, capacitance, thermal and magnetic sensors.

34. (Original) The method of claim 33, wherein the identification symbol comprises a two-dimensional symbol.

35. (Original) The method of claim 33, wherein the two-dimensional symbol comprises a matrix forming an encoded array.

36. (Currently Amended) The method of claim 33, wherein each marking layer is comprised of the same medium and said step of detecting the respective identification symbol comprises the step of detecting each identification symbol using ~~a~~an x-ray sensor which has tomographic capabilities for reading the identification symbols from each said marking layer.

37. (Canceled)

38. (Previously Presented) The method of claim 33, wherein each marking layer comprises material having different characteristics and the step of detecting the respective identification symbol comprises detecting each identification symbol using at least two different sensors of said group, each sensor detecting the symbol from a respective marking layer.

39. (Previously Presented) The method of claim 38, wherein each marking layer comprises material having different characteristics from that of other said marking layers, the step of detecting the respective identification symbol comprises using at least two different sensors, and the different sensors comprise two of the group consisting of x-ray, radar, capacitance, thermal, magnetic, and ultrasonic sensor.

40. (Original) The method of claim 33, further comprising applying an opaque layer over the label.

41. (Original) The method of claim 33, wherein the label further comprises a neutral layer disposed between two of the plurality of marking layers.

42. (Original) The method of claim 33, wherein the respective identification symbol encoded in at least two marking layers comprise a respective symbol fragment.

43. (Original) The method of claim 42, further comprising the step of assembling detected symbol fragments thereby forming a complete symbol.

44. (Original) The method of claim 33, wherein the step of detecting the respective identification symbol from each marking layer comprises the steps of:

collecting analog image signals emitted from the label; and

converting the analog image signals to a digital signal string using an analog to digital converter.

45. (Original) The method of claim 44, further comprising the step of converting the digital signal string into an ASCII data string.

46. (Original) The method of claim 45, further comprising the step of converting the ASCII data string to a video signal that can be displayed on a video monitor.